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Frequently Asked Questions on Anthrax

Anthrax Questions and Answers:

Worker Safety for Persons Handling Mail

Does CDC have recommendations to help workers who handle mail protect themselves from anthrax exposure?

Yes, CDC has published interim recommendations that are intended to assist personnel responsible for occupational health and safety in developing a comprehensive program to reduce potential cutaneous or inhalational exposures to *Bacillus anthracis* spores among workers, including maintenance and custodial workers, in work sites where mail is handled or processed. Such work sites include post offices, mail distribution/handling centers, bulk mail centers, airmail facilities, priority mail processing centers, public and private mailrooms, and other settings in which workers are responsible for the handling and processing of mail.

If these recommendations are followed does it mean workers will stop getting sick with anthrax?

The interim recommendations that have been developed are based on the limited information available on ways to avoid infection and the effectiveness of various prevention strategies. As new information becomes available the guidelines will be updated. These recommendations do not address instances where a known or suspected exposure has occurred. Workers should be trained in how to recognize and handle a suspicious piece of mail (<http://www.bt.cdc.gov>). In addition, each work site should develop an emergency plan describing appropriate actions to be taken when a known or suspected exposure to *Bacillus anthracis* occurs.

What kinds of anthrax guidelines are being issued?

The recommendations are divided into four categories. They are engineering controls, administrative controls, housekeeping controls, and personal protective equipment for workers. The guidelines describe measures that should be implemented in mail-handling/processing sites to prevent potential exposures to *B. anthracis* spores.

Is CDC telling all mail handling operations to adopt these anthrax guidelines immediately?

Every facility is different and should be evaluated based on the recommendations in the guidelines, and the recommendations implemented should be selected on the basis of an initial evaluation of the work site. This evaluation should focus on determining which processes, operations, jobs, or tasks would be most likely to result in an exposure should a contaminated envelope or package enter the work site. Many of these measures (e.g.,



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administrative controls, use of HEPA filter-equipped vacuums, wet-cleaning, use of protective gloves) can be implemented immediately; implementation of others will require additional time and efforts.

What kinds of engineering controls should mail-handling/processing operations consider implementing for detecting anthrax spores?

B. anthracis spores can be aerosolized during the operation and maintenance of high-speed, mail-sorting machines, potentially exposing workers and possibly entering heating, ventilation, or air-conditioning (HVAC) systems. Engineering controls can provide the best means of preventing worker exposure to potential aerosolized particles, thereby reducing the risk for inhalational anthrax, the most severe form of the disease. In settings where such machinery is in use, the following engineering controls should be considered:

- An industrial vacuum cleaner equipped with a high-efficiency particulate air (HEPA) filter for cleaning high-speed, mail-sorting machinery
- Local exhaust ventilation at pinch roller areas
- HEPA-filtered exhaust hoods installed in areas where dust is generated (e.g., areas with high-speed, mail-sorting machinery)
- Air curtains (using laminar air flow) installed in areas where large amounts of mail are processed
- HEPA filters installed in the building's HVAC systems (if feasible) to capture aerosolized spores

Note: Machinery should not be cleaned using compressed air (i.e., blowdown/blowoff).

What administrative controls should mail-handling/processing sites consider implementing to protect workers from exposure to *B. anthracis* spores?

Strategies should be developed to limit the number of people working at or near sites where aerosolized particles may be generated, such as mail-sorting machinery and places where mailbags are unloaded or emptied. In addition, restrictions should be in place to limit the number of people including support staff and nonemployees entering areas where aerosolized particles may be generated. This recommendation applies to contractors, business visitors, and support staff.

What housekeeping controls in mail-handling/processing sites are recommended to protect workers from exposure to *B. anthracis* spores?

In the mail-handling work-site, dry sweeping and dusting should be avoided. Instead, the area should be wet-cleaned and vacuumed with HEPA-equipped vacuum cleaners.

What personal protective equipment for workers in mail-handling/processing sites is recommended to protect workers from exposure to *B. anthracis* spores?



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Personal protective equipment for workers in mail-handling/processing work sites must be selected on the basis of the potential for cutaneous or inhalational exposure to *B. anthracis* spores. Handling packages or envelopes may result in skin exposure. In addition, because certain machinery such as electronic mail sorters can generate aerosolized particles, people who operate, maintain, or work near such machinery may be exposed through inhalation. People who hand sort mail or work at other sites where airborne particles may be generated such as where mailbags are unloaded or emptied may also be exposed through inhalation.

What are some examples of personal protective equipment and clothing that could be used to protect workers who handle mail from exposure to *B. anthracis* spores?

- Protective, impermeable gloves should be worn by all workers who handle mail. In some cases, workers may need to wear cotton gloves under their protective gloves for comfort and to prevent dermatitis. Skin rashes and other dermatological conditions are a potential hazard of wearing gloves. Latex gloves should be avoided because of the risk of developing skin sensitivity or allergy.
- Gloves should be provided in a range of sizes to ensure proper fit.
- The choice of glove material such as nitrile or vinyl should be based on safety, fit, durability, and comfort. Sterile gloves such as surgical gloves are not necessary.
- Different gloves or layers of gloves may be needed depending on the task, the dexterity required, and the type of protection needed. Protective gloves can be worn under heavier gloves such as leather, heavy cotton for operations where gloves can easily be torn or if more protection against hand injury is needed.
- For workers involved in situations where a gloved hand presents a hazard such as those who work close to moving machine parts, the risk for potential injury resulting from glove use should be measured against the risk for potential exposure to *B. anthracis*.
- Workers should avoid touching their skin, eyes, or other mucous membranes since contaminated gloves may transfer *B. anthracis* spores to other body sites.
- Workers should consider wearing long-sleeved clothing and long pants to protect exposed skin.
- Gloves and other personal protective clothing and equipment can be discarded in regular trash once they are removed or if they are visibly torn, unless a suspicious piece of mail is recognized and handled.

If a suspicious piece of mail is recognized and handled for anthrax, the worker's protective gear should be handled as potentially contaminated material (See "Guideline For Handwashing And Hospital Environmental Control," 1985, available at <http://www.cdc.gov/ncidod/hip/guide/handwash.htm>).



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- Workers should wash their hands thoroughly with soap and water when gloves are removed, before eating, and when replacing torn or worn gloves. Soap and water will wash away most spores that may have contacted the skin; disinfectant solutions are not needed.

Are there some areas in the postal setting that present a greater risk to some workers than others for anthrax exposure?

There are some additional recommendations for workers who may be exposed through inhalation.

- People working with or near machinery capable of generating aerosolized particles, such as electronic mail sorters, or at other work sites where such particles may be generated should be fitted with NIOSH-approved respirators that are at least as protective as an N95 respirator.
- People working in areas where oil mist from machinery is present should be fitted with respirators equipped with P-type filters.
- Because facial hair interferes with the fit of protective respirators, workers with facial hair like beards and or large moustaches may require alternative respirators such as powered air-purifying respirators [PAPRS] with loose-fitting hoods.
- Workers who cannot be fitted properly with a half-mask respirator based on a fit test may require the use of alternative respirators, such as full facepiece, negative-pressure respirators, PAPRs equipped with HEPA filters, or supplied-air respirators.
- If a worker is medically unable to wear a respirator, the employer should consider reassigning that worker to a job that does not require respiratory protection.
- In addition, the use of disposable aprons or goggles by persons working with or near machinery capable of generating aerosolized particles may provide an extra margin of protection.

If your environment was exposed to *B. anthracis* spores, when will you know whether or not you will get the associated disease, anthrax?

When public health officials have determined that you specifically have been exposed to *B. anthracis* and should take postexposure prophylaxis for prevention of inhalational anthrax. If so, you should receive and complete your 60 days of treatment.

The three types of anthrax, which may have different incubation periods, are as follows:

Inhalational anthrax generally occurs after an incubation period of 1 to 7 days following inhalation of spores. However, the period from when the spores are actually inhaled and when they germinate to cause infection may vary. In some rare cases incubation periods may be longer, possibly up to 60 days.

Cutaneous anthrax, which is characterized by a skin lesion, has an incubation period ranging from 1 to 12 days.



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Gastrointestinal anthrax, which is characterized by severe abdominal pain followed by fever and signs of septicemia, can have an incubation period of 1 to 7 days.

Anthrax and Laboratory Safety

How are microbiological materials, such as bacterial cultures, kept safe and directed for legitimate laboratory use only?

On June 10, 1996, CDC and the Department of Health and Human Services (HHS) issued a Notice of Proposed Rulemaking (NPRM) to implement Section 511 of Public Law 104-132, "The Antiterrorism and Effective Death Penalty Act of 1996," which requires the Secretary of HHS to regulate the transfer of select agents. Current regulations specify requirements for the packaging, labeling, and transport of select agents shipped in interstate commerce. This final rule places additional shipping and handling requirements on facilities that transfer or receive select agents listed in the rule that are capable of causing substantial harm to human health. For more information on these regulations, see <http://www.cdc.gov/od/ohs/lrsat/42cfr72.htm> - [Registration of Facilities](#).

Diagnosis

Why were nasal swabs used to screen individuals in the Florida investigation for anthrax?

The nasal swab test was used as a screening tool because, following initial recognition of the case of confirmed inhalational anthrax, there were no known sources of exposure. Determining whether anyone else associated with the case-patient might have been exposed was important. In this setting, the nasal swab method was used for a rapid assessment of exposure among people, and as a tool for rapid environmental assessment. When the source of exposure is not known, nasal swabs can help investigators determine that information. They are not used for diagnosing people with anthrax, and they are not 100 percent effective in determining all who may have been exposed.

Is a nasal swab test an approved diagnostic tool for determining whether a person has been exposed to anthrax?

No. At present, CDC does not recommend the use of nasal swab testing on a routine basis to determine whether a person has been exposed to *B. anthracis* or as a diagnostic tool. At best, a positive result may be interpreted only to indicate exposure; a negative result does not exclude the possibility of exposure. Nasal swab screening may be used by public health officials to assist in an epidemiological investigation of potentially exposed persons to evaluate the dispersion of spores.



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Is there an X-ray for detecting anthrax?

A chest X-ray can be used to help diagnose inhalation anthrax in people who have symptoms. It is not useful as a test for determining anthrax exposure or for people with no symptoms.

Can someone get anthrax from contaminated mail, equipment or clothing?

In the mail handling processing sites, *B. anthracis* spores may be aerosolized during the operation and maintenance of high-speed, mail sorting machines potentially exposing workers. In addition, these spores could get into heating, ventilating, or air conditioning (HVAC) systems. CDC interim guidelines have been issued to advise workers on how best to protect themselves in the workplace.

Vaccine

Is there a vaccination for anthrax?

A protective vaccine has been developed for anthrax; however, it is primarily given to military personnel. Vaccination is recommended only for those at high risk, such as workers in research laboratories that handle anthrax bacteria routinely. The antibiotics we use are very effective in preventing anthrax from occurring after an exposure.

Questions and Answers on Anthrax Medications

Are there special instructions for taking ciprofloxacin?

As with all antibiotics, take the medication according to the schedule you were instructed, and even if you begin to feel better, continue taking it for the full number of days. If you need an extension of the antibiotic at the end of your prescribed number of days, local emergency healthcare workers or your healthcare provider will inform and tell you how to get more medicine. They may also tell you to discontinue the antibiotic, or will change the type of antibiotic, depending on results of laboratory tests.

After I have started taking ciprofloxacin to protect me from developing anthrax, what side effects could I get from taking this antibiotic?

Side effects which sometimes occur including nausea, mild diarrhea, stomach pain, headache and dizziness. Talk with your doctor if you have any of these problems while you are taking the antibiotic. Certain foods and medications should not be taken with ciprofloxacin; this should be discussed at the time the antibiotic is prescribed, so that side effects will not occur from the combinations. Ciprofloxacin also can cause sun sensitivity which increases the chances of sunburn. More serious side effects include central nervous system side effects such as confusion, tremors, hallucinations, depression, and increased



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risk of seizures. High blood pressure and blurred vision are also possible. Allergic reactions could cause difficulty breathing; closing of the throat; swelling of the lips, tongue, or face; hives or severe diarrhea. Pain, inflammation, or rupture of a tendon are possible and also severe tissue inflammation of the colon could occur. **Call your doctor or seek medical advice right away if you are having any of these side effects.** This list is NOT a complete list of side effects reported with ciprofloxacin. Your healthcare provider can discuss with you a more complete list of side effects.

Are there special instructions for taking doxycycline?

As with all antibiotics, take the medication according to the schedule you were instructed, and even if you begin to feel better, continue taking it for the full number of days. If you need an extension of the antibiotic at the end of your prescribed number of days, local emergency healthcare workers or your healthcare provider will inform and tell you how to get more medicine. They may also tell you to discontinue the antibiotic, or will change the type of antibiotic, depending on results of laboratory tests.

After I have started taking doxycycline to protect me from developing anthrax, what side effects could I get from taking this antibiotic?

Less serious side effects include diarrhea, upset stomach, nausea, sore mouth or throat, sensitivity to sunlight, vaginal yeast infection or itching of the mouth lasting more than 2 days. You should talk with your doctor if you have any of these problems while taking doxycycline.

Certain foods and medications should not be taken with doxycycline, and this should be discussed with your healthcare provider at the time the antibiotic is prescribed, so that side effects will not occur from the combinations. Doxycycline also causes sun sensitivity, which increases the chances of sunburn. Serious side effects of doxycycline that are possible but uncommon include life-threatening allergic reaction (symptoms are trouble breathing; closing of the throat; swelling of the lips, tongue, or face; or hives), blood problems (symptoms are unusual bleeding or bruising), liver damage (symptoms are yellowing of the skin or eyes, dark urine, nausea, vomiting, loss of appetite, or abdominal pain), and irritation of the esophagus. **Call your doctor or seek medical attention right away if you are having any of these side effects.** This list is NOT a complete list of side effects reported with doxycycline. Your healthcare provider can discuss with you a more complete list of side effects.

Why is CDC recommending doxycycline instead of ciprofloxacin for the treatment and prevention of anthrax?

Both doxycycline and ciprofloxacin are effective in treating *Bacillus anthracis* that we are dealing with in these investigations. Although CDC first recommended the use of either drug for postexposure prophylaxis for the prevention of inhalational



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anthrax, we are now recommending doxycycline in order to prevent other bacteria from developing resistance to ciprofloxacin.

Ciprofloxacin is part of the fluoroquinolone family of drugs, a relatively new class of antibiotics used to treat infections caused by organisms for which doctors do not have information about antimicrobial susceptibility. This kind of treatment is known as empiric therapy. Ciprofloxacin and other fluoroquinolones are used for empiric treatment for a variety of serious and common infections in the United States, including pneumonia, gastrointestinal infections, and urinary tract infections. The number of people who have been exposed to *B. anthracis* and need antibiotics has increased dramatically since CDC first issued guidelines for treatment. If all those people take ciprofloxacin, other bacteria they carry in their bodies may develop resistance to fluoroquinolones, potentially limiting the usefulness of these drugs as empiric therapy.

Doxycycline is less frequently used for empiric treatment than ciprofloxacin; therefore, we have fewer concerns regarding this drug and the emergence of new resistant bacteria.

Why are people who have been exposed to *Bacillus anthracis* being given antibiotics for different amounts of time?

The initial number of people placed on prophylaxis may reflect conservative estimates with wide safety margins based on limited preliminary information. As the investigation progresses, and a clearer picture of exposure develops, the number of people advised to continue prophylaxis may be reduced.

As of the last week of October 2001, when preliminary tests show that people have been exposed to *Bacillus anthracis*, those exposed may be provided with a starter packet of antibiotics; the number of days for which antibiotics are prescribed can vary according to the specific situation and person. Additional tests are then conducted of the area where exposure occurred and to determine the extent of exposure. Based on the results of these additional tests, those exposed may be instructed to return to a centralized location for additional care or to seek additional care from their primary care providers; additional antibiotics may be prescribed based on the particular situation and person. Lastly, it is recommended that people found to be at risk of inhalation anthrax be prescribed 60 days of antibiotics. These general procedures may change at any time as new information is gathered.

Are there different strains of *B. anthracis*? Do they all respond to antibiotics?

Yes, there are different strains of *Bacillus anthracis*. Some strains of *B. anthracis* may be naturally resistant to certain antibiotics and not others. In addition, there may be biologically mutant strains that are engineered to be resistant to various antibiotics. A laboratory analysis can help to define which strain of *B. anthracis* is present and which antibiotic would be the most effective in treating the resulting anthrax.



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What is the FDA telling physicians and other health professionals about prescriptions for ciprofloxacin?

Although FDA does not regulate the practice of medicine, the agency is strongly recommending that physicians not prescribe ciprofloxacin for individual patients to have on hand for possible use against inhaled anthrax. In addition to the potential for decreasing the supply of the drug, indiscriminate prescribing and widespread use of ciprofloxacin could hasten the development of drug-resistant organisms and lessen the effects of these agents against many infections.

Can other fluoroquinolones be used instead of ciprofloxacin for post-exposure prophylaxis and treatment for anthrax?

Other fluoroquinolones, such as ofloxacin and levofloxacin, are not specifically recommended as alternatives to ciprofloxacin because of a lack of sufficient data on their efficacy.

What drugs are FDA approved for post-exposure prophylaxis and treatment?

Ciprofloxacin and doxycycline are FDA approved for post-exposure prophylaxis, and ciprofloxacin, doxycycline, and amoxicillin are FDA approved for treatment. In the current situation of intentional anthrax distribution, doxycycline and ciprofloxacin are the recommended drugs for prophylaxis.

What are the guidelines for changing from ciprofloxacin to another antibiotic for anthrax?

Once antimicrobial susceptibility test results are available, then it may be appropriate to change to another antibiotic.

Questions and Answers on Responses to Anthrax

How can I recognize suspicious packages that have anthrax?

Only specially trained personnel can distinguish between a real bioterrorism attack and a false one. If you suspect that a package, letter, or anything else contains a harmful biological agent, call 911 to activate the local emergency response system; in communities without 911 systems, notify local law enforcement authorities. Guidance on identifying suspicious packages and letters and what to do until the authorities arrive are available on CDC's Web site at

<http://www.bt.cdc.gov/DocumentsApp/Anthrax/10122001Handle/10122001Handle.asp>.



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How can I recognize a bioterrorism hoax?

If you are not sure whether a bioterrorism report is true or not, check with credible sources, such as CDC's Health-Related Hoaxes and Rumors Web site at http://www.cdc.gov/hoax_rumors.htm and Public Health Emergency Preparedness and Response Web site at <http://www.bt.cdc.gov>.

A number of Internet sites are available regarding urban legends and hoaxes, such as the Urban Legend Reference Page at <http://www.snopes2.com> and the Computer Incident Advisory Committee and Department of Energy's HoaxBusters site at <http://hoaxbusters.ciac.org>. The HoaxBuster's site also offers a guide for recognizing an Internet hoax at <http://hoaxbusters.ciac.org/HBHoaxInfo.html#identify>.

What can the consumer buy to protect against "germ" or "chemical warfare" such as anthrax?

Currently, the CDC does not recommend consumers buy any particular product to protect against biological or chemical attacks.

When will sensors (biodetection devices) for detecting chemical and biological agents be available and to whom?

Hand-held assays (sometimes referred to as "Smart Tickets") are sold commercially for the rapid detection of *Bacillus anthracis*. These assays are intended only for the screening of environmental samples. First responder and law enforcement communities are using these as instant screening devices and should forward any positive samples to authorities for more sensitive and specialized confirmatory testing. The results of these assays should not be used to make decisions about patient management or prophylaxis. The utility and validity of these assays are unknown.

At this time, CDC does not have enough scientific data to recommend the use of these assays. The analytical sensitivity of these assays is limited by the technology, and data provided by manufacturers indicate that a minimum of 10,000 spores is required to generate a positive signal. This number of spores would suggest a heavy contamination of the area (sample). Therefore a negative result does not rule out a lower level of contamination. Data collected from field use also indicate specificity problems with some of these assays. Some positive results have been obtained with spores of the non-anthrax *Bacillus* bacteria that may be found in the environment.

For these reasons, CDC has been asked to evaluate the sensitivity and specificity of the commercially available rapid, hand-held assays for *B. anthracis*. When this study is completed, results will be made available. Conclusions from this study are not expected in the near future.



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What should be done with clothing contaminated with anthrax? Is washing in a regular home washer and dryer ok? Do we recommend adding bleach to the wash?

Clothing can be decontaminated using soap and water, and 0.5% hypochlorite solution (one part household bleach to ten parts water).

Are other solutions used at hospitals for cleaning blood spills also effective against anthrax?

(Source: Interim Recommendation for Firefighters and other First Responders)

The recommendation for decontaminating equipment is a 0.5% hypochlorite solution (one part household bleach to ten parts water).

Are other public health programs being neglected due to the focus on anthrax and other bioterrorism issues?

Public health efforts not related to bioterrorism are not being neglected. Because anthrax and bioterrorism remain in the media spotlight, it might appear that all of CDC's attention has been shifted to these issues. CDC is paying a great deal of attention to the current bioterrorism event; however, CDC staff continue to address the needs of other public health programs. The other ongoing initiatives can be reviewed on the CDC homepage at <http://www.cdc.gov>.

How should healthcare workers respond to suspected exposure to a bioterrorist agent? Who should healthcare workers call first, second, third? CDC, FBI, local police, local health department?

Healthcare providers, clinical laboratory personnel, and infection control professionals who notice illness patterns and diagnostic clues that might indicate an unusual infectious disease outbreak associated with intentional release of a biologic agent should report any clusters or findings to their local or state health department. (Guidelines for recognizing a number of biologic agents, including anthrax, plague, botulism, smallpox, inhalational tularemia, and hemorrhagic fever, are described in CDC's *Morbidity and Mortality Weekly Report*, Vol. 50, No. 41, dated October 19, 2001.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5041a2.htm>).

Does CDC have a system for monitoring all samples of anthrax that come into state laboratories?

CDC supports a network of state laboratories through routine quality assurance, training, and random testing. In addition the state laboratories send CDC samples for confirmation. Other questions concerning state public health laboratories should be directed to the state department of public health.



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What should I do to protect my family and myself if a dangerous chemical agent were released in my community?

Emergency management teams would lead efforts in the event of a chemical attack and would let you know if you need to evacuate the area or seek some type of shelter.

Should I purchase a gas mask as protection from any chemical agent release such as anthrax?

No, CDC does not recommend purchasing gas masks. The likelihood that you would be involved in a chemical attack is low, and your protection is the responsibility of state and federal law enforcement officials. They are on high alert to ensure that such an event does not happen.

In addition, CDC believes that purchasing a gas mask causes a false sense of security and can do more harm than good. Masks that aren't used properly or that do not fit well will not give you adequate protection. In the past, improperly used masks have actually caused some people to suffocate.

Will antibiotics protect me from a bioterrorist event? Should I stockpile them?

CDC does not recommend using antibiotics unless a specific disease has been identified. There are several different disease agents that could be used for bioterrorism, such as bacteria, viruses, and toxins. No antibiotics (or vaccines) work for all of these agents. Antibiotics only kill bacteria, not viruses or other agents that could also be used in a bioterrorist event. Antibiotics are not harmless drugs. They can cause serious side effects and drug interactions. National and state public health officials have large supplies of needed drugs and vaccines if a bioterrorism event should occur. These supplies can be sent anywhere in the United States within 12 hours.

Are health department laboratories capable of conducting testing?

All state health departments are capable of obtaining results of tests on suspected infectious agents. Laboratories are usually classified as Level A, B, C, or D. Level A laboratories are those typically found in community hospitals, and these laboratories should be able to perform initial testing on all clinical specimens (usually blood or some other body fluid). Public health laboratories are usually Level B; these laboratories are valuable for confirming or refuting preliminary test results and can usually perform antimicrobial susceptibility tests on bacteria and viruses. Level C laboratories, which are reference facilities and can be public health laboratories, can perform more rapid identification tests. Level D laboratories are designed to perform the most sophisticated tests and are located in federal facilities such as CDC.

Every state has a Laboratory Response Network (LRN) contact. The LRN links state and local public health laboratories with advanced-capacity laboratories, including clinical,



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military, veterinary, agricultural, water, and food-testing laboratories. Laboratorians should contact their state public health laboratory to identify their local LRN representative.

CDC's public bioterrorism Web site (<http://www.bt.cdc.gov>) provides access to CDC's Centers for Public Health Preparedness, a national network of academic institutions and local health departments whose goal is to ensure that local public health workers are fully prepared to respond to current and emerging health threats, including bioterrorism.

How is CDC responding to the anthrax reports?

CDC continues to work with state and local health departments and other federal agencies to conduct public health investigations stemming from the recent bioterrorism attacks with *B. anthracis* spores. Dozens of CDC epidemiologists, laboratory scientists, and other program staff are working in Florida, New York, Washington, D.C., and New Jersey to assist local health professionals in conducting these investigations.

CDC staff members in Atlanta are also responding to the bioterrorism attacks. More than 50 laboratory scientists are working around the clock to process hundreds of specimens CDC is receiving. CDC has set up a 24-hour-a-day emergency operations center equipped with state-of-the-art communications equipment to help coordinate these public health investigations. The operations center includes telephone hotlines for both the public and for health professionals, where staff members are receiving hundreds of calls each day.

What is CDC's role in an anthrax field investigation?

CDC is using traditional public health strategies in its approach to these investigations. In this situation, the primary intervention has been to rapidly identify at-risk people and treating them with appropriate post-exposure antibiotics in an effort to prevent the development of inhalational anthrax.

The structure of the investigation evolves into at least five teams that coordinate various aspects of the investigation or intervention.

- An intervention team ensures that the people who have suspected exposure to anthrax are identified and receive antibiotics.
- A surveillance team looks for persons who develop anthrax.
- A clinical team, which is led by infectious disease specialists, rapidly assesses any possible case of anthrax revealed by surveillance.
- An environmental assessment team coordinates the sampling of environments associated with the investigation for *Bacillus anthracis*, and coordinates the movement of those samples to appropriate laboratories.



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- An epidemiology team gathers available information in an effort to try and better understand the circumstances of exposure and persons at risk for infection.

The leader of the investigation manages these teams and communicates with local, state, and public health authorities; media; and community and political leaders. The leader also works with the FBI and the U.S. Postal Service and makes sure laboratory test results and other new information are incorporated into the investigation.